GALGOTIAS UNIVERSITY

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ATTENDANCE SYSTEM USING CLOUD COMPUTING

Submitted by

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IN

COMPUTER SCIENCE

COMPUTER SCIENCE AND ENGINEERING DEPT

Under supervision of

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SCHOOL OF COMPUTING AND SCIENCE AND ENGINEERING

BONAFIDE CERTIFICATE

Certified that this project report "ATTENDANCE SYSTEM USING CLOUD COMPUTING" is the bonafide work of "Prarthana Kumari" who carried out the project work under my supervision.

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School of Computing Science &   **School of Computing Science &**

Engineering   **Engineering**

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ABSTRACT

This project uses a web application as well as android application concept to facilitate the attendance system in educational institutes. It uses the most reliable way of uniquely identifying students through an android app.

Such type of web application is very useful in school as well as in college for daily attendance. Through this system, we can keep a systematic track of student's attendance. This project enables the easy way of maintaining class attendance with fewer efforts.

- Class teacher easily marks student attendance by using android application.

- The system also generates a brief report of attendance from the database according to subject-wise or date-wise as required.

- A defaulter list can be generated through system.

- Admin has the option to generate the reports and defaulter list.

INTRODUCTION

An attendance system allows adding the attendance of the employee/student who is present on that day. The user has to login and scan their identity card to mark their attendance. As the card has been scanned, the details like id number, date, in-time, out-time are saved in the database. The database will be stored into the azure cloud which will form a dedicated connection between application and cloud server via internet. With the in-time andout-time data stored in cloud, the admin can calculate the working hours of the employees. The employees can view his personal details, attendance, in-time or out-time, total working hours after he/she logs into the system.

This data is retrieved from the cloud database and can be accessed any time by the employee and the admin.

The admin of the system can add new employee by registering the new employee and filling up their registration details. The admin is authorized to view the records of all the employees. This system allows keeping up to date record of the employee. As, the project files and a database file will be stored into the Azure cloud, the project will be accessed in the web browser

Following components make this project useful-

User can't add proxy attendance.

The database is secured as it is stored in an Azure cloud server.Employee working hours is calculated systematic manner. Since, Employee working hours are calculated which enables user to easily calculate

OVERALL DESCRIPTION

- Class teacher easily marks student attendance by using android application.

- The system also generates a brief report of attendance from the database according to subject-wise or date-wise as required.

- A defaulter list can be generated through system.

Admin has the option to generate the reports and defaulter list.

The system comprises of 2 major modules with their sub-modules as follows:

1. **Admin**

   o **Login:** Need to enter login credentials into web interface by the admin or the authorized person.

   o **Add / View Class:** Can add a new class detailsas well as the batch details into the system. Admin can view class details

   o **Add / Handler:** Can add a new handler details and assign handler to particular class center.

o **Add / Manage Student:** Can register new student details into the system and also can view and manage their details.

o **Take Attendance:** Admin or Respective person can take attendance of registered students for a particular class.

o **View Report:** System allows admin to view student's attendance report.

2. <u>Handler</u>

o **Login:** Here, handler need to enter the login credentials into windows application in order to start the fingerprint scanning application.

o **Start Application:**Handler need to start application in order to take/mark registered students attendance.

PURPOSE

- Class teacher easily marks student attendance by using android application.
- The system also generates a brief report of attendance from the database according to subject-wise or date-wise as required.
- A defaulter list can be generated through system.
- Admin has the option to generate the reports and defaulter list.

Hence, this project introduces a manageable and systematic approach of maintaining attendance records.

MOTIVATION AND SCOPE

Every organization whether it be an educational institution or business organization, it has to maintain a proper record of attendance of students or employees for effective functioning of organization. Designing a better attendance management system for students so that records be maintained with ease and accuracy was an important key behind motivating this project. This would improve accuracy of attendance records because it will remove all the hassles of roll calling and will save valuable time of the students as well as teachers.

Image processing and finger print recognition are very advanced today in terms of technology.

It was our responsibility to improve finger print identification system. We decreased matching time by partitioning the database to one-tenth and improved matching using key based one to many matching.

PROPOSED SYSTEM

- Considering the anomalies in the existing system computerization of the whole activity is being suggested after initial analysis.

- The windows as well as web application is developed using Visual Studio with Asp .Net with C# as a programming language.

- Proposed system is accessed by two entities namely, Admin and Handler.

- Admin can access the web application where as a handler can access the windows application.

- Admin need to login with their valid login credentials first in order to access the web application.

- After successful login, admin can access all the modules and perform/manage each task accurately.

- Admin can perform task such as adding new class details and managing it whenever required, adding a handler and assigning it to a respective class, registering new student with basic details, academic and fingerprint details.

- System allows admin to take attendance using web application which sends a request to windows application to scan registered students fingerprint in order to mark attendance.

- Admin can view and manage student's details whenever required.

- Attendance report can be viewed by the admin itself.

- Handler at the other end can login using valid credentials and start the windows application in order to mark student attendance.

Once all the students finished with attendance marking, handler can stop the application.

EXISTING SYSTEM

Problem with current scenario

As we can see now, all the attendances are keep in form of paper that the student must sign it manually. This is not a systematic method where the form can be lost and may be damaged. The lecturer also must put the form in any files or folders that it needs some spaces to put in rack or cabinet.

The problem description of this project is the existing manual class attendance signing system for subject Project Formulation is inefficient and not systematic. The existing manual class attendance signing system

needs students improperly sign the attendance sheet during class. The lecturer has to keep all attendance sheets and calculate the attendance report throughout the semester manually and come out with their own, not standardize student's attendance report. In the manual system, students can easily forge their friend's signature purposely to fill in the class attendance.

Drawbacks of the existing system

- Maintenance of the system is very difficult.
- There is a possibility for getting inaccurate results.
- User friendliness is very less

IMPLEMENTATION

The Project is loaded in Visual Studio 2010. We used Visual Studio for Design and coding of project. Created and maintained all databases into SQL Server 2008, in that we create tables, write query for store data or record of project.
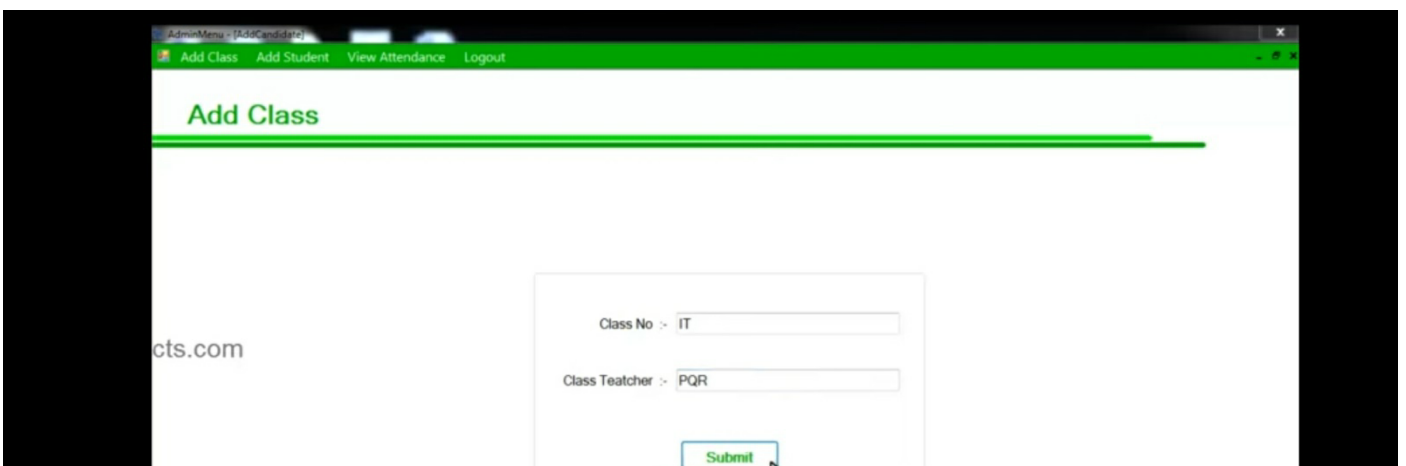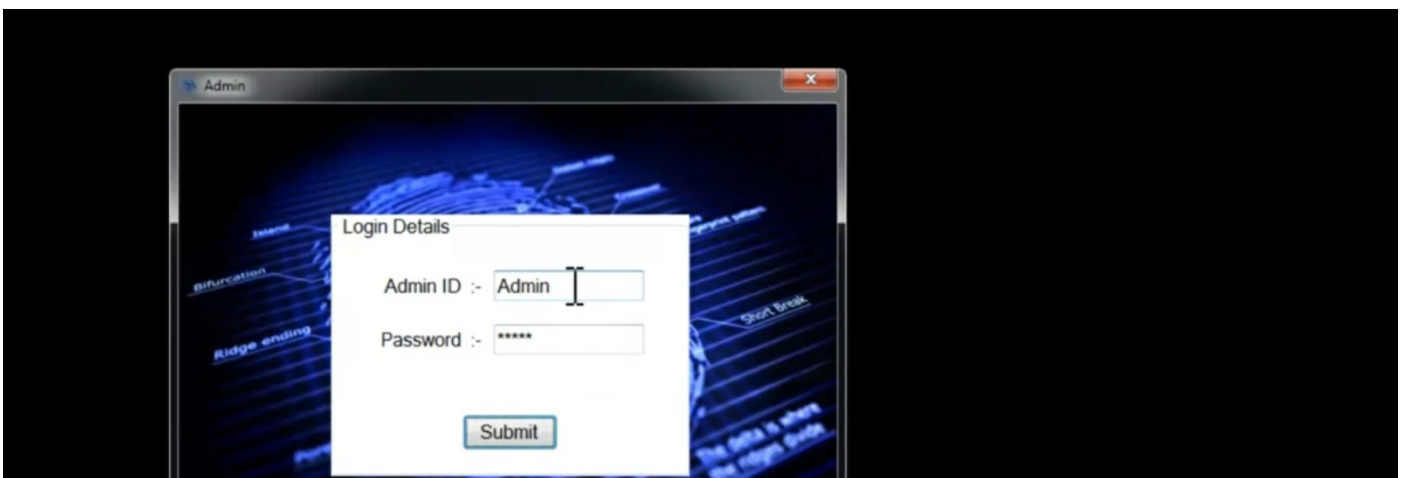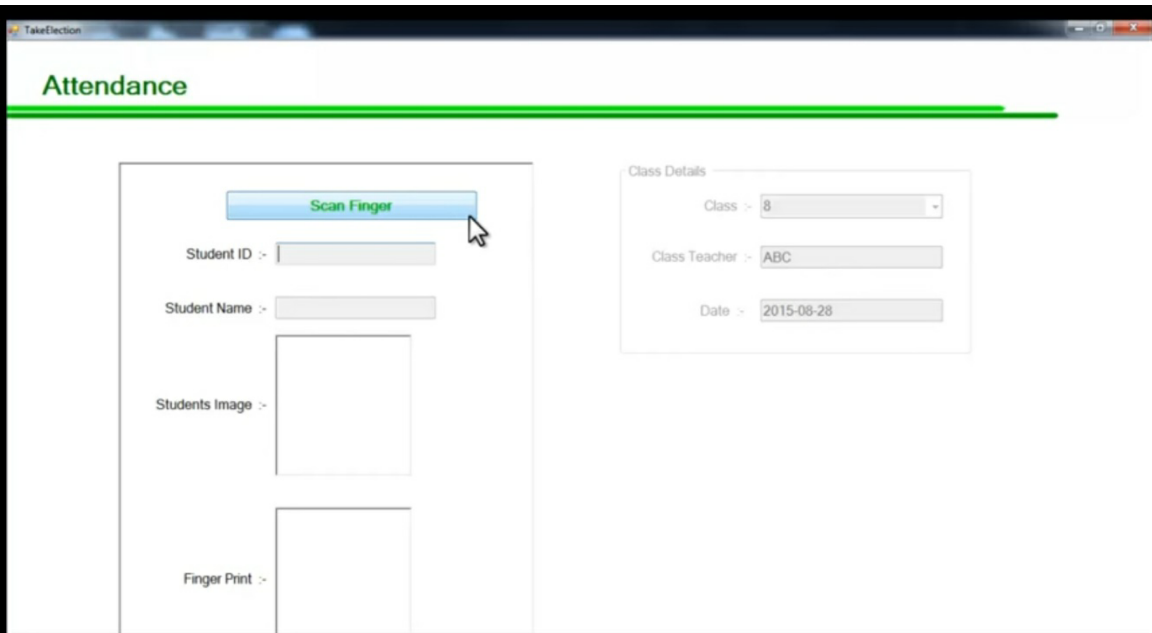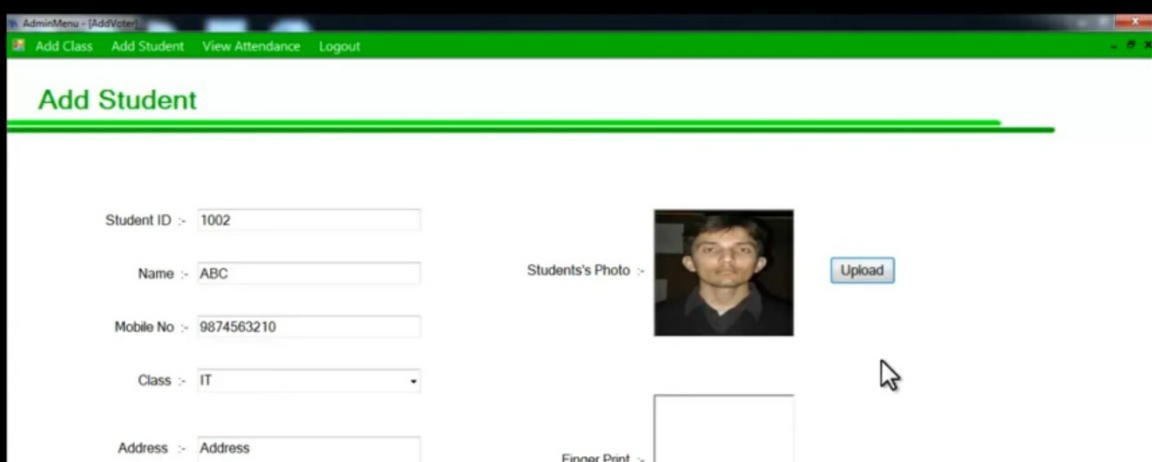
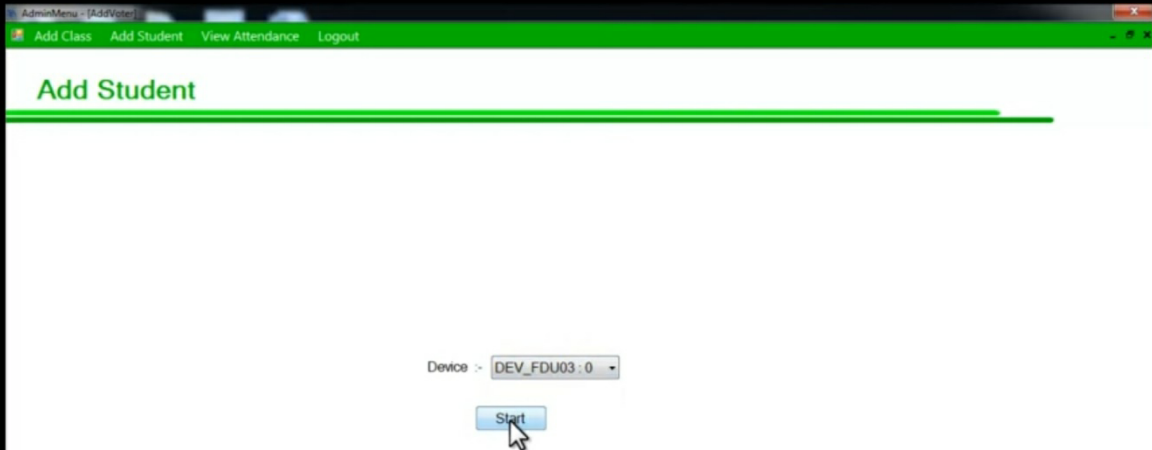❖ **Hardware Requirement:**

- ➢ i3Processor Based Computer or higher
- ➢ Memory: 1 GB RAM
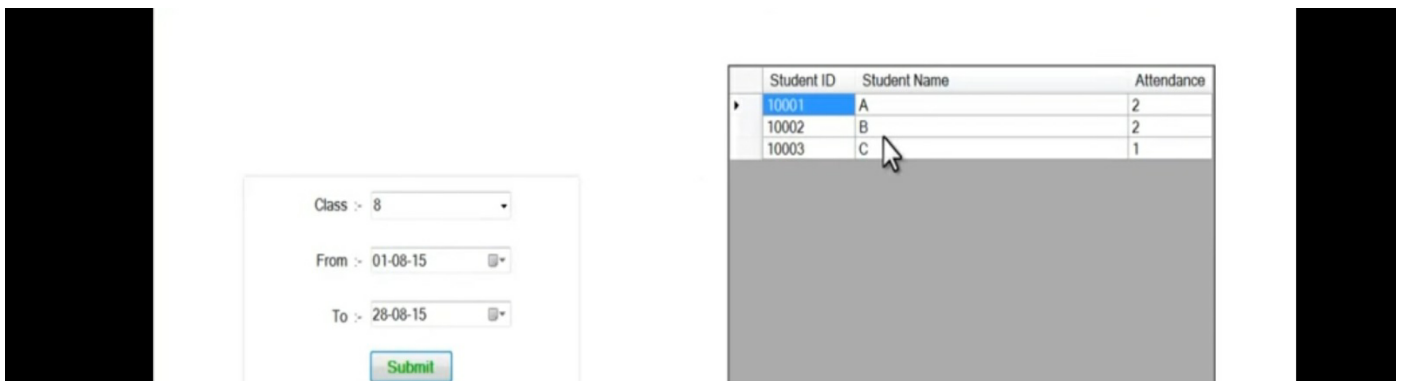- ➢ Hard Drive: 50 GB
- ➢ Monitor
- ➢ Internet Connection
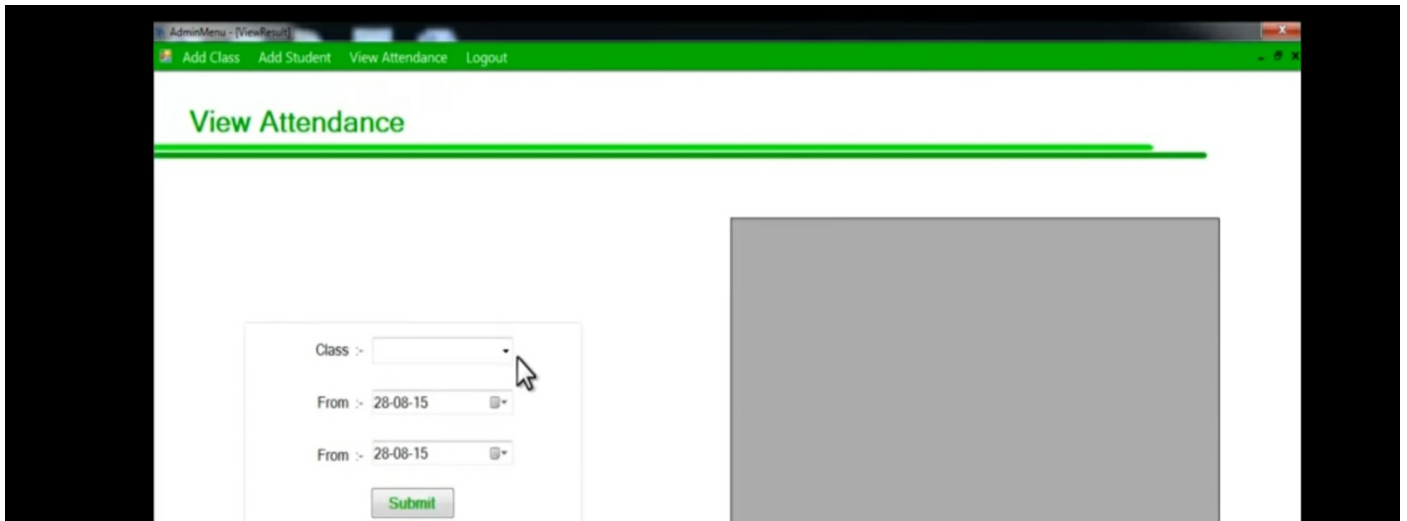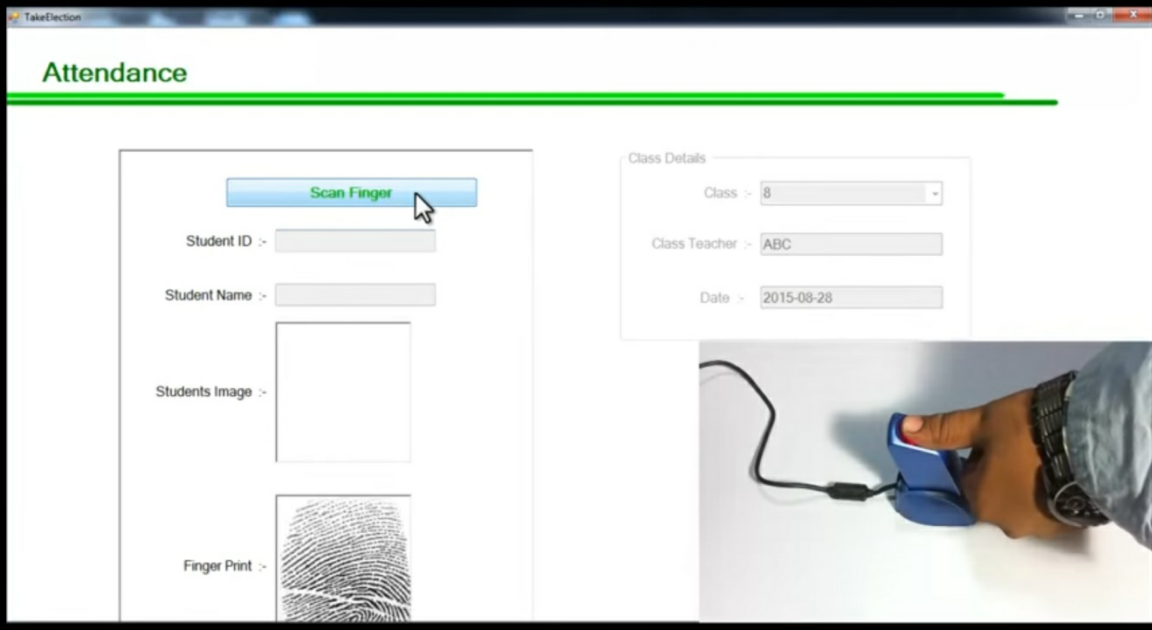
❖ **Software Requirement:**

- ➢ Windows 7 or higher
- ➢ Visual studio 2010.
- ➢ SQL Server 2008.

OUTPUT / RESULT / SCREENSHOT

Add Student

Device :- DEV_FDU03 : 0

Start

Add Student

Student ID :- 1002

Name :- ABC

Mobile No :- 9874563210

Class :- IT

Address :- Address

Students's Photo :-

Upload

Finger Print :-

Attendance

Scan Finger

Student ID :-

Student Name :-

Students Image :-

Finger Print :-

Class Details

Class :- 8

Class Teacher :- ABC

Date :- 2015-08-28

CONCLUSION/FUTURE ENHANCEMENT

- The system can be used for schools, college, or universities for taking down attendance.

- The system can be used during parents meeting to show parents about their children's attendance performance.

- It can also be implemented in organizations for attendance.

- The system is helpful as it generates a systematic overall report of every class attendance.

- The system helps the faculty to easily view attendance report on a single click.

- It maintains the records in a large database instead of conventional method of maintaining register which further simplifies the process of searching for a particular record.

- Admin may easily get attendance history of a particular student.

- The system introduces a manageable and systematic approach of maintain attendance records.

- No proxy attendance will be entertained.

- It saves user time, cost and institute resources.

- Records can be easily accessed and store and other information respectively.

- Maintaining the all secured and database on the server which will be accessible according the user requirement without any maintenance cost will be a very efficient as compared to storing all the customer data on the spreadsheet or in physically in the record books.

- Cloud Based Attendance Systemis design as easy way. So maintenance is also easy.

REFERENCE

✓ Microsoft Developer Network (MSDN): http://msdn2.microsoft.com/en-us/default.aspx: This is a valuable online resource, and is a must for any developer using Microsoft tools.

✓ http://www.asp.net/: This is the official Microsoft ASP.NET web site. It has a lot of:

tutorials, training videos, and sample projects.

- ✓ http://ieeexplore.ieee.org/abstract/document/7473570/

- ✓ http://www.indjst.org/index.php/indjst/article/download/101807/73436